

Listing of Claims:

1. (Currently Amended) A method for reducing odor, said method comprising:
modifying particles having a positive zeta potential with a transition metal,
wherein a bifunctional chelating agent complexes said transition metal to said particles,
wherein said bifunctional chelating agent contains one or more iminodiacetic acid
groups; and
contacting said modified particles with an odorous compound, said transition
metal providing one or more active sites for capturing said odorous compound.
2. (Previously Presented) A method as defined in claim 1, wherein said particles
are formed from a material selected from the group consisting of silica, alumina,
zirconia, magnesium oxide, titanium dioxide, iron oxide, zinc oxide, copper oxide,
polystyrene, and combinations thereof.
3. (Original) A method as defined in claim 1, wherein said particles comprise
alumina.
4. (Original) A method as defined in claim 3, wherein said particles comprise
silica coated with alumina.
5. (Previously Presented) A method as defined in claim 1, wherein said particles
have an average size of about 500 microns or less.
6. (Previously Presented) A method as defined in claim 1, wherein said particles
have an average size of about 100 nanometers or less.
7. (Original) A method as defined in claim 1, wherein said particles have an
average size of from about 4 to about 20 nanometers.

8. (Original) A method as defined in claim 1, wherein said particles have a surface area of from about 50 to about 1000 square meters per gram.

9. (Original) A method as defined in claim 1, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

10. (Previously Presented) A method as defined in claim 1, wherein said particles have a zeta potential of about +20 millivolts or more.

11. (Previously Presented) A method as defined in claim 1, wherein said particles have a zeta potential of about +30 millivolts or more.

12. (Previously Presented) A method as defined in claim 1, wherein said particles have a zeta potential of about +40 millivolts or more.

13. (Cancelled)

14. (Previously Presented) A method as defined in claim 1, wherein said bifunctional chelating agent contains moieties selected from the group consisting of hydroxyl, carboxy, imino, amino, carbonyl, and combinations thereof.

15. (Cancelled)

16. (Currently Amended) A method as defined in claim 1 ~~15~~, wherein said bifunctional chelating agent contains ethylenediaminetetraacetic acid.

17-18. (Cancelled)

19. (Currently Amended) A method as defined in claim 1 ~~48~~, wherein said bifunctional chelating agent is a catechol ~~also contains~~ containing an iminodiacetic acid group.

20-21. (Cancelled)

22. (Original) A method as defined in claim 1, wherein said odorous compound is selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

23. (Original) A method as defined in claim 1, further comprising applying said modified particles to a substrate.

24. (Original) A method as defined in claim 23, wherein said substrate comprises a nonwoven, woven, or paper web.

25-51. (Cancelled)

52. (Currently Amended) A substrate for reducing odor, said substrate being applied with particles coated with alumina that are modified with a transition metal, said particles having a positive zeta potential, wherein a bifunctional chelating agent complexes said transition metal to said particles, wherein said bifunctional chelating agent contains one or more iminodiacetic acid groups, wherein said transition metal provides one or more active sites for capturing an odorous compound.

53. (Original) A substrate as defined in claim 52, wherein said particles are formed from silica.

54. (Previously Presented) A substrate as defined in claim 52, wherein said particles have an average size of about 100 nanometers or less.

55. (Original) A substrate as defined in claim 52, wherein said particles have a surface area of from about 50 to about 1000 square meters per gram.

56. (Original) A substrate as defined in claim 52, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

57. (Previously Presented) A substrate as defined in claim 52, wherein said particles have a zeta potential of about +20 millivolts or more.

58. (Previously Presented) A substrate as defined in claim 52, wherein said particles have a zeta potential of about +30 millivolts or more.

59. (Previously Presented) A substrate as defined in claim 52, wherein said particles have a zeta potential of about +40 millivolts or more.

60-61. (Cancelled)

62. (Currently Amended) A substrate as defined in claim 52 64, wherein said bifunctional chelating agent contains ethylenediaminetetraacetic acid.

63-64. (Cancelled)

65. (Currently Amended) A substrate as defined in claim 52 64, wherein said bifunctional chelating agent is a catechol also contains containing an iminodiacetic acid group.

66-67. (Cancelled)

68. (Original) A substrate as defined in claim 52, wherein the substrate comprises a nonwoven, woven, or paper web.

69. (Currently Amended) A substrate as defined in claim 52, wherein ~~the solids add-on level of~~ said modified particles are present at a solids add-on level of is from about 0.001% to about 20%.

70. (Original) An absorbent article that comprises the substrate of claim 52.

71. (Original) An absorbent article as defined in claim 70, further comprising at least one liquid-transmissive layer and a liquid-absorbent core, wherein said substrate forms at least a portion of said liquid-transmissive layer, said liquid-absorbent core, or combinations thereof.

72. (Original) An absorbent article as defined in claim 71, wherein the absorbent article includes a liquid-transmissive liner, a liquid-transmissive surge layer, a liquid-absorbent core, and a vapor-permeable, liquid-impermeable outer cover, said substrate forming at least a portion of said liner, said surge layer, said absorbent core, said outer cover, or combinations thereof.

73. (Original) A paper product that comprises the substrate of claim 52.

74. (Original) A facemask that comprises the substrate of claim 52.

75. (New) A substrate for reducing odor, said substrate being applied with particles coated with alumina that are modified with a transition metal, said particles having a positive zeta potential, wherein a bifunctional chelating agent complexes said transition metal to said particles, wherein said bifunctional chelating agent contains a dye, wherein said transition metal provides one or more active sites for capturing an odorous compound.

76. (New) A substrate as defined in claim 75, wherein said particles are formed from silica.

77. (New) A substrate as defined in claim 75, wherein said particles have an average size of about 100 nanometers or less.

78. (New) A substrate as defined in claim 75, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

79. (New) A substrate as defined in claim 75, wherein said particles have a zeta potential of about +20 millivolts or more.

80. (New) A substrate as defined in claim 75, wherein said dye includes an anthraquinone dye.

81. (New) A substrate as defined in claim 75, wherein the substrate comprises a nonwoven, woven, or paper web.

82. (New) A substrate as defined in claim 75, wherein said modified particles are present at a solids add-on level of from about 0.001% to about 20%.